

**ABSTRACT**

There is provided an optical signal monitoring method and apparatus for measuring the characteristics of an input WDM optical signal. In the optical signal monitoring method, the WDM optical signal is combined with reference lights at both sides of the WDM optical signal on the wavelength spectrum. The combined signal is input to a filter having a variable transmission wavelength according to an applied driving voltage. A driving voltage-light intensity graph of a combined optical signal detected from the filter is derived in its overall wavelength band. A linear approximated wavelength is obtained with respect to a driving voltage and a non-linear compensated wavelength is calculated in a predetermined non-linear compensation formula with the driving voltage and the operation temperature of the filter.